the Advisory Committee to be applicable to, and supportable by, Waukesha County and the local units of government in the County.

The land use objectives are concerned with the allocation of land to the various land use categories. the spatial distribution of the various land uses, the protection of the natural resource base, and the preservation of environmentally sensitive lands and prime agricultural lands in the County. The housing objectives are concerned with the provision of decent, safe, and sanitary housing, the provision of a full range of housing types and sizes, and the provision of adequate locational choice in housing. The transportation objectives are concerned with the provision of a flexible multi-modal transportation system, the alleviation of traffic congestion, the reduction of travel time and accident exposure, and the minimization of costs and disruption of communities and the natural environment. The park and open space objectives are concerned with the quantity and spatial distribution of parks and other outdoor recreation sites and facilities required to meet the needs of County residents and with the protection of open space lands for resource preservation and outdoor recreation purposes.

Among the various planning standards, the standard deliberated upon at greatest length by the Advisory Committee was the land use planning standard pertaining to the identification and delineation of "prime" agricultural lands. Under the currently adopted regional land use plan and the Waukesha County agricultural land preservation plan, prime agricultural areas were defined as areas consisting of farm units which meet the following criteria: 1) the farm units must be at least 35 acres in size, 2) at least 50 percent of the farm units must be covered by soils meeting U.S. Natural Resources Conservation Service criteria for National prime farmland or farmland of Statewide importance, and 3) the farm units must be located in a contiguous block of similar farmland at least 100 acres in size.

After careful consideration, taking into account changes in farming practices and the types of farms in the County, as well as the extent of urban development in the County since the 1970s, the Advisory Committee recommended changes to the criteria on soil productivity and block size to be used in identifying prime agricultural areas. Specifically, the Committee recommended that prime agricultural areas be identified as consisting of farm units which are at least 35 acres in size; at least 50 percent of which are covered by National prime farmland; and which are located in a contiguous block of

similar farmland of at least five square miles in size. The removal of soils of Statewide importance from consideration in identifying prime agricultural areas, together with the increase in the farming block size criterion from 100 acres to five square miles, had the effect of substantially reducing the amount of land identified as prime agricultural land under the County development plan as compared to the amount under the regional land use plan and the County agricultural land preservation plan.

RECOMMENDED COUNTY DEVELOPMENT PLAN

The development plan for Waukesha County presented in this report consists of four elements. each pertaining to a key aspect of the physical development of the County: land use, housing, transportation, and parks and open space. The land use element is the most basic of the four plan elements, inasmuch as it establishes the basic settlement pattern, expressed in terms of land use. population, household, and employment levels, recommended for the County. The other three plan elements were, in turn, developed within the framework of the recommended land use plan. The land use, housing, transportation, and park and open space plan elements comprise the core of a development plan for the County. This core may be supplemented over time through the preparation of additional plan elements for other functional areas, in response to changing needs within the County.

LAND USE PLAN

A preliminary land use plan was completed for public review and comment late in 1995. That plan was prepared so as to be consistent with the County development objectives and standards recommended by the Advisory Committee, incorporating to the extent practicable the provisions of all adopted city. village, and town land use plans. Where local land use plan recommendations were found to be inconsistent with the County development objectives, the County land use plan was designed to meet, to the extent practicable, those objectives. In areas where no adopted local land use plan existed, a recommended land use pattern was developed in accordance with the County development objectives. Within the extraterritorial planning areas of cities and villages, where conflicts were found to exist between adopted city or village plans and adopted town plans, the County land use plan was designed to accommodate whichever local plan was found to be most consistent with the County development objectives. Where both an extraterritorial plan and a town plan were found to be inconsistent with the County development objectives, neither plan was incorporated into the County land use plan; a land use plan for the affected area was developed in accordance with the County development objectives.

During the four-month period from mid-November 1995 through mid-March 1996, the preliminary plan was presented for public review and comment in a series of seven intergovernmental meetings held throughout the County and 20 additional meetings with local officials and interested citizens. Utilizing information provided at these meetings, including information pertaining to recent urban development and recent local approvals of subdivision plats and certified survey maps not reflected on the preliminary plan, a final recommended plan was prepared. Similar to the preliminary plan, the final recommended plan was prepared to meet the Advisory Committee-approved County development objectives.

It should be noted that the planning process recommended by the Advisory Committee represents a departure from conventional land use planning practices, under which the amount of land allocated to various land use categories is determined largely by forecast increases in population, household, and employment levels over a chosen plan design period, normally 20 years. Duly adopted local land use plans, rather than forecasts of population, households, and economic activity, however, were a major determinant of the amount of land allocated to the various urban land use categories in the preparation of the County development plan. This approach was necessary given the statutory requirements governing county planning.

The recommended land use plan is summarized graphically on Map 87 in Chapter X of this report. The plan is a "buildout" plan; the planned land use, population, household, and employment levels reflect conditions which may be expected upon full development of the areas proposed to be devoted to the various land uses identified in the plan. The buildout conditions would probably not occur until after the year 2050.

Planned Urban Land

Under the recommended land use plan, gross urban land uses, those lands devoted to residential; commercial; industrial; governmental and institutional; recreational; and transportation, communication, and utility uses, would increase by about 106 square miles, or about 72 percent, from about 148 square miles in 1990 to about 254 square miles

under buildout conditions. Such urban land uses, which comprised about 26 percent of the total area of the County in 1990, would account for about 44 percent of that area of the County under buildout conditions. For purposes of the plan, the area within the rights-of-way of standard arterial, collector, and land access streets was included in the adjacent urban or rural land use categories.

Under the plan, urban residential land use would increase by about 78 square miles, or about 73 percent, from about 108 square miles in 1990 to about 186 square miles under buildout conditions. The proportion of the County devoted to urban residential land uses would increase from about 19 percent in 1990 to about 32 percent under buildout conditions. Of the planned increase in urban residential uses, about 62 percent would be developed at low density, defined as 20,000 square feet to 1.4 acres of net lot area per dwelling unit, and at suburban density, defined as 1.5 to 4.9 acres of net lot area per dwelling unit.

The plan envisions a substantial increase in the area devoted to commercial and industrial land uses. Under the plan, commercial land uses would increase by about six square miles, or about 86 percent, from about eight square miles in 1990 to about 14 square miles under buildout conditions. Industrial land uses would increase by about 12 square miles, or about 185 percent, from about seven square miles in 1990 to about 19 square miles under buildout conditions. Commercial and industrial land uses, each of which approximated about 1 percent of the total area of the County in 1990, would comprise about 2 percent and 3 percent, respectively, of that area under buildout conditions.

Other urban land uses, consisting of governmental and institutional; recreational; and transportation, communication, and utility uses, together would increase by about nine square miles, or about 35 percent; from about 26 square miles in 1990 to about 35 square miles under buildout conditions. The proportion of the County area devoted to these uses would increase from about 4 percent in 1990 to about 6 percent under buildout conditions.

Planned Nonurban Land

Under buildout conditions, nonurban land uses, consisting of environmentally sensitive lands, other open lands to be preserved, prime agricultural lands, other agricultural and rural residential lands, and extractive lands, would decrease by about 106 square miles, or about 25 percent, from about 432 square miles in 1990 to about 326 square miles

under buildout conditions. Nonurban land uses, which comprised about 74 percent of total area of the County in 1990, would comprise about 56 percent of that area under buildout conditions.

The plan recommends the preservation of primary environmental corridors in essentially natural, open uses. Under the plan, development within the primary environmental corridors would be limited to that needed to accommodate required transportation and utility facilities, compatible outdoor recreation facilities, and carefully sited residential uses at rural densities on a limited basis. The plan recommends that secondary environmental corridors be considered for preservation in natural, open use or incorporated as drainageways or local parks in developing areas. The plan recommends that isolated natural resource areas be preserved in natural, open use insofar as practicable recognizing that these areas are often well suited for use as public or private parks and open space reserves. Under the plan, primary and secondary environmental corridors and isolated natural resource areas combined would increase by about two square miles, or about 1 percent, from 170 square miles in 1990 to about 172 square miles under buildout conditions. This increase would occur as certain currently farmed floodlands adjacent to primary and secondary environmental corridor lands within planned sewer service areas revert, over time, to a natural condition, becoming part of the environmental corridor network as urbanization of adjoining upland areas proceeds.

In addition, the plan recommends the permanent preservation of certain other open lands, most of which are located adjacent to the identified environmental corridors and isolated natural resource areas. These areas include 100-year recurrence interval floodlands in planned rural areas, lands within existing County or State park and open space sites, and lands covered by soils poorly suited for urban development. Such lands encompass about 11 square miles, or about 2 percent of the total area of the County.

Under the recommended County land use plan, prime agricultural lands in the County would decrease by about 47 square miles, or about 74 percent, from about 64 square miles in 1990 to about 17 square miles under buildout conditions. Such lands, which comprised about 11 percent of the total area of the County in 1990, would account for about 3 percent of that area under buildout conditions. The anticipated loss in prime agricultural lands would occur as a result of the conversion of such

land to intensive urban use, primarily within expanding urban service areas and as a result of the reclassification of prime agricultural lands to ruraldensity residential and other agricultural lands. Areas would be reclassified in this manner when, as a result of intruding urban development, the areas are fragmented to the extent that they no longer meet the block size criteria inherent in the definition of prime agricultural land. Prime agricultural lands which are recommended for preservation under the plan would be retained exclusively in agricultural and agriculture-related uses, with minimum parcels of at least 35 acres in size in order to preserve workable farm units and discourage the further intrusion of incompatible urban development into the remaining agricultural areas.

Under the plan, rural residential and other agricultural lands are defined as agricultural or related open lands which do not meet the criteria for designation as prime agricultural land but which are proposed to be retained in rural use, including rural-density residential use. For purposes of the plan, rural-density residential use is defined as residential use at a gross density of no more than one dwelling unit per five acres of open land. Under buildout conditions, rural residential and other agricultural lands would encompass about 115 square miles, or about 20 percent of the total area of the County. In accommodating rural residential development, the plan encourages the use of clustering techniques which confine dwelling units to a relatively small portion of a development site while retaining the rest of the site in open space uses, thereby preserving the rural character and open space environment historically associated with the County.

The plan recognizes that, while the County contains an abundance of nonmetallic mineral resources. including sand, gravel, and dimensional stone, efforts to extract such resources are increasingly constrained by the continued urbanization of the County. The plan seeks to preserve and protect lands for mineral extraction before they are developed for urban use or effectively precluded from extractive use by further urban development of adjacent areas. The areas identified for extractive use under the recommended plan encompass about 11 square miles, or about 2 percent of the total area of the County. It should be recognized in this respect that mineral extractive activity is an interim use, and further, that mining activity at any given site usually proceeds in phases, with early phases undergoing restoration while later phases are being mined. Accordingly, the total area of the

County being actively mined at any point in time may be expected to be significantly less than 11 square miles.

Planned Population, Households, and Employment Upon full development of the urban residential areas envisioned under the recommended County land use plan, the resident population of the County would increase by about 204,000 persons, or about 67 percent, from about 305,000 persons in 1990 to about 509,000 persons under buildout conditions. The number of households in the County would increase by about 84,000, or about 80 percent, from about 106,000 households in 1990 to about 190,000 households under buildout conditions. In addition, if all the areas identified on the plan as rural residential and other agricultural lands were developed at a density of one housing unit per five acres. an additional 43,100 persons, representing 14,900 additional households, would be accommodated within the County under buildout conditions. Under such conditions, the recommended County land use plan would accommodate a total resident population of about 552,000 persons and about 205,000 resident households.

Under the recommended County land use plan, the number of employment opportunities, or jobs, in the County would increase by about 200,000 jobs, or about 116 percent, from about 172,000 jobs in 1990 to about 372,000 jobs under buildout conditions.

In order to provide perspective on the level of growth envisioned under the County development plan, a comparison was made between the buildout plan population, household, and employment levels, levels which are largely an outgrowth of the local land use plans which were incorporated into the County plan, and levels projected by the Regional Planning Commission for the year 2010 under the regional intermediate-growth and high-growth scenarios. The analysis indicated that resident population and household levels envisioned under plan buildout conditions were within 7 percent of the year 2010 levels projected under the Commission's high-growth scenario and that the population and household levels under plan buildout conditions substantially exceed, by 40 percent and 44 percent, respectively, the levels projected under the intermediate-growth scenario. The analysis further indicated that total employment envisioned under the County land use plan buildout conditions substantially exceeds even the highest Commission employment projections for the County for the year 2010. Thus, the number of jobs in the County under plan

buildout conditions exceeds the year 2010 highgrowth scenario employment projection by about 45 percent and exceeds the intermediate-growth scenario employment projection by about 86 percent.

Planned Sanitary Sewerage Service

Under the recommended County land use plan, most of the proposed new urban development within the County would be served with public sanitary sewer facilities. In addition, public sanitary sewer service would be extended to certain urban areas existing in 1990 but lacking such facilities. The resident population served by public sanitary sewers would approximately double, from about 220,000 persons in 1990 to about 452,000 persons under buildout conditions. The proportion of the County population so served would increase from 72 percent in 1990 to 82 percent under buildout conditions.

Year 2010 Stage of the Land Use Plan

The pattern of land uses proposed in the County land use plan will not be brought about immediately, but will emerge gradually over a long period of time, with full development not likely to occur until after the year 2050. In order to assist the County and local units of government in staging development over time as well as to facilitate functional planning for transportation and public utility facilities, planning which is commonly undertaken for a 20-year time frame, a year 2010 stage of the County development plan was prepared. A graphic summary of land uses in the County envisioned under the 2010 stage of the plan is shown on Map 90 in Chapter X of this report.

It should be noted that the 2010 stage of the County land use plan is intended to describe the level of urban development which might reasonably be expected to occur in the County by the year 2010. It is presumed that, provided with a realistic, consensus-based framework upon which to gauge the scale of future urban development, the cities, villages, and towns within the County will undertake efforts to refine and detail the County land use plan through the preparation of new or updated local land use plans and land use regulatory ordinances to ensure that new urban development proceeds efficiently and in a manner consistent with Countywide development objectives. It is in the best interests of the cities, villages, and towns concerned to manage development through proper staging of land use plans in order to minimize infrastructure needs and costs and to preserve open space, both within their respective jurisdictions and within the County as a whole.

The year 2010 stage of the County land use plan envisions substantial increases in urban land uses in the County. Thus, total urban land use would increase by about 59 square miles, or 40 percent, from 148 square miles in 1990 to about 207 square miles by the year 2010. The incremental urban land between 1990 and 2010 would include about 43 square miles of urban residential land, about seven square miles of commercial and industrial land combined, and about nine square miles of other urban lands.

Under the plan, the resident population of the County would increase from about 305,000 persons in 1990 to about 385,000 persons by the year 2010, an increase of about 80,000 persons, or about 26 percent. The number of households would increase from about 106,000 in 1990 to about 143,000 by the year 2010, an increase of about 37,000 households, or about 35 percent. Total employment would increase from about 172,000 jobs in 1990 to about 249,000 jobs by the year 2010, an increase of about 77,000 jobs, or about 44 percent.

Land Use Plan Implementation

The recommended land use plan provides a design for the attainment of the urban and rural development and open space preservation objectives contained in the plan. However, the plan is not complete until the means to implement the plan, that is, to convert the plan into action policies and programs, are specified. The various actions required to implement the plan were described in the final section of Chapter X of this report. The most important plan implementation actions pertaining to the urban development areas, rural development areas, environmentally sensitive areas, and prime agricultural areas envisioned under the plan are summarized below.

Land Use Plan Implementation for Urban Development Areas: One of the initial steps recommended for implementation of the County land use plan as it pertains to the proposed urban development areas is the preparation of detailed development and redevelopment plans for the residential neighborhoods and special-purpose districts which comprise the proposed urban service areas. Within the context of the County plan, detailed development plans should be prepared for each neighborhood or special-purpose district in which significant growth or change is expected. Zoning regulations should be reviewed and adjusted, as necessary, to ensure the proper staging of development over time. In this respect, the application of urban zoning districts should proceed incrementally. The premature

zoning of lands for urban use should be avoided so as to prevent the creation of additional isolated urban enclaves and incomplete neighborhoods. Accordingly, the areas concerned should be placed in zoning districts consistent with their existing use and should be rezoned into appropriate urban districts only when development has been proposed and approved and essential facilities and services can be readily provided.

Land Use Plan Implementation for Rural Development Areas: Recommended plan implementation efforts within the proposed rural development areas similarly include additional local planning efforts to refine and detail the general recommendations of the County land use plan and the adjustment of zoning as necessary to implement the plan, as refined. Planning and zoning should be carried out in such a manner as to preserve rural character. First, new residential development should be limited to an overall density of no more than one dwelling unit per five acres of open land within the planning area. This density is intended to provide a basis for determining the maximum number of additional dwelling units which should be accommodated. The number should be calculated by dividing by five the total acreage within the rural planning area currently in open use, including primary and secondary environmental corridors, isolated natural resource areas, and other open lands to be preserved, but excluding the acreage of major public land holdings and major water bodies.

Second, to the maximum extent practicable, the dwelling units which may be accommodated in accordance with the overall five-acre density should be developed by using residential cluster designs, in which dwelling units are grouped together on a relatively small portion of the site. The residential clusters should be limited in size, surrounded by open space, and, as may be necessary, contain open space. The clustered lots should be no larger than necessary to accommodate the residential structures, driveways, and desired yards, including, as necessary, space for an onsite soil-absorption sewage-disposal system and replacement system area. This can usually be accomplished on lots no greater than one acre in size. The lot size may be reduced when a sewage-collection system is installed and waste treatment provided at a common wastetreatment facility. Such a facility could consist of a large common holding tank or a large common soil-absorption sewage disposal system operated as a public utility. Water supply could also be provided by distribution mains served by a common well operated as a public utility.